



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,152	03/17/2005	Youji Notoya	2005_0444A	2812
52349 7590 07/16/2009 WENDEROTH, LIND & PONACK L.L.P. 1030 15th Street, N.W. Suite 400 East Washington, DC 20005-1503				
EXAMINER				
TORRENTE, RICHARD T				
ART UNIT		PAPER NUMBER		
2621				
MAIL DATE		DELIVERY MODE		
07/16/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/528,152

**Applicant(s)**

NOTOYA ET AL.

**Examiner**

RICHARD TORRENTE

**Art Unit**

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,5-9 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-9 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 April 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 5-9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (US 6,980,594).

Regarding claim 1, Wang discloses a picture coding method of coding a plurality of pictures (see I, B and P in fig. 2) included in a picture signal (see fig. 2) for generating a coded picture signal (see column 1, lines 42-46; see column 1, lines 59-66) by coding (see fig. 2, although decoding order is shown, it is implied that the GOP order shown in fig. 2 is based on the direct order of the coding order) each of predetermined pictures as an entry picture (see I2 in "current GOP" in fig. 2) without reference to another picture, and coding each of the pictures other than the entry pictures with reference to another coded picture (e.g. see B0 in "current GOP" in fig. 2), the picture signal including an access unit (see column 1, lines 59-66 and see "GOP" in fig. 2) within which a picture located after the entry picture in coding order (e.g. see B0 in "current GOP" in fig. 2) is able to refer to a picture located before the entry picture in coding order (see "forward predictions from the previous GOP" in fig. 2), the access unit being made up of a plurality of pictures including the entry picture (see "GOP" in fig. 2), the picture coding

method comprising: a selection step of selecting, using a selection unit, a target access unit (see "current GOP" in fig. 2); a first reference restriction step of restricting, using a first reference restriction unit (see "prediction from the current group" in fig. 2), in the case where a first access unit including a first entry picture (see I2 in "current GOP" in fig. 2) is selected in the selection step, so that a post-entry picture (e.g. see B3 in fig. 3) located after the first entry picture in display order within the first access unit refers to another picture (see P5 in fig. 3) except for: (1) all pictures located before the first entry picture in coding order (see B3 not referencing any "previous GOP" in fig. 2); and (2) a forward reference pre-entry picture (e.g. see B0 in "current GOP" in fig. 3) which is located before the entry picture in display order within the first access unit and refers to a picture located before the first entry picture in coding order (e.g. see "forward predictions from the previous GOP" in fig. 3); a second reference restriction step of restricting, using a second reference restriction unit (see "next GOP" in fig. 2), in the case where the first access unit including the first entry picture is selected in the selection step, within a second access unit including; a second entry picture (see I2 in "next GOP" in fig. 2), so that a pre-entry picture (e.g. see B0 in "next GOP" in fig. 3) located before the second entry picture in display order refers to another picture (e.g. see I2 in "next GOP" in fig. 3) except for: (1) all the pictures located before the first entry picture in coding order (see B0 in "next GOP" not referencing any "previous GOP" in fig. 2); and (2) the forward reference pre-entry picture (see B0 in "next GOP" not referencing B0 in "current GOP" in fig. 3), the second access unit immediately following the first-access unit (see "next GOP" after "current GOP" in fig. 3); and a reference

structure information coding step of coding, using a reference structure information coding unit (see arrow pointers in "current GOP" in fig. 2), in the case where the first access unit including the first entry picture is selected in the selection step, reference structure information indicating an access unit processed as a target access unit (see "current GOP" in fig. 2) for which the first and second reference restriction steps have been executed (see fig. 2 and 3 relating to column 1, lines 42-46).

Regarding claim 2, Wang further discloses wherein in the first reference restriction step, another picture is used for reference (e.g. see I2 in "current GOP" in fig. 2) except for: (1) all the pictures located before the first entry picture in coding order (see B3 in "current GOP" not referencing any "previous GOP" in fig. 3); and (2) all pre-entry pictures located before the first entry picture in display order within the first access unit (see B3 in "current GOP" not referencing any "previous GOP" in fig. 3), and in the second reference restriction step, another picture is used (e.g. see P11 in fig. 3) for reference except for: (1) all the pictures located before the first entry picture in coding order (see B0 in "current GOP" not referencing any "previous GOP" in fig. 3); and (2) all pre-entry pictures in the first access unit (e.g. see "previous GOP" not referenced by B0 in "next GOP" in fig. 3).

Regarding claim 5, Wang further discloses comprising: an insertion step of inserting each reference structure information corresponding to each access unit into said each access unit included in the coded picture signal (see column 1, lines 59-66).

Regarding claim 6, Wang further discloses comprising: an output step of outputting the reference structure information, by attaching the generated information to the coded picture signal (see column 1, lines 42-46).

Regarding claim 7, Wang further discloses comprising: an insertion step of coding each identification information for identifying each reference structure information corresponding to each access unit (see fig. 2), and inserting said identification information into said each access unit included in the coded picture signal (see column 1, lines 42-46).

Regarding claim 8, Wang further discloses wherein the reference structure information indicates a range of reference for each picture included in each access unit (see fig. 2).

Regarding claim 9, Wang further discloses wherein information indicating the range of the reference is information indicating, per access unit, a range of reference for each post-entry picture included in each access unit, and a range of reference for each pre-entry picture included in an access unit immediately following said each access unit (see fig. 2).

Regarding claim 18, the claim(s) recite analogous limitations to claim 1, and is/are therefore rejected on the same premise.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1, 2, 5-9 and 18 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD TORRENTE whose telephone number is (571) 270-3702. The examiner can normally be reached on M-F: 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard Torrente/  
Examiner, Art Unit 2621

/Young Lee/  
Primary Examiner, Art Unit 2621

RT